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(54) Title: **MAPPING OF DYNAMIC LINK LIBRARIES IN COMPUTING DEVICES**

Step 1 Remapping component before Loading

A	export 1 = ?
A+1	export 2 = ?
A+2	export 3 = ?
Relocations	
<ul style="list-style-type: none"> Set A to be contents of export 3 in new.dll Set A+1 to be contents of export 2 in new.dll Set A+2 to be contents of export 7 in another.dll 	

Step 4 Execution Sequence

1000	call 1009
1009	jump to address in 1010
3027	<instructions to implement foo>

Step 2 Loading of executable, remapping component and new.dll

Executable	Remapping Component	new.dll
1000 call 1009	2000 export 1 = ?	3000 export 1 = 3019
1009 jump to address in 1010	2001 export 2 = ?	3001 export 2 = 3008
1010 data = ?	2002 export 3 = ?	3002 export 3 = 3027
set 1010 to be contents of export 1 in original.dll	set 2000 to be contents of export 3 in new.dll	3027 <instructions to implement foo>

Step 3 Complete the relocations

Executable	Remapping Component	new.dll
1000 call 1009	2000 export 1 = 3027	3000 export 1 = 3019
1009 jump to address in 1010	2001 export 2 = 3008	3001 export 2 = 3008
1010 data = 3027	2002 export 3 = 4011	3002 export 3 = 3027
		3027 <instructions to implement foo>

(57) Abstract: A remapping component is provided for facilitating a link between an executable and a function held in a new dynamic link library (DLL) in a computing device. The remapping component is provided with a relocation instruction arranged to update, upon loading, an export data table entry for the remapping component with the address location of the function in the new dynamic link library. In this way, the executable, when calling for the function at an address location in a known DLL, will automatically jump to, the address location for the function in the new DLL. The additional subroutines usually associated with remapping DLLs can therefore be avoided, providing improved operation for the computing device.

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